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# **Notice of Allowability**

**Application No.**

10/826,835

**Applicant(s)**

SPINELLI ET AL.

**Examiner**

Hrayr A. Sayadian

**Art Unit**

2828

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on 4/16/2006.
2. ☒ The allowed claim(s) is/are 1-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 4/19/06 & 4/16/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### **Allowance**

1. Claims 1-31 are pending in this application and they are all allowed.

These claims are subject to an election of species requirement. This requirement has now been withdrawn and the pending claims to non-elected species have therefore been rejoined.

### **Examiner's Amendment**

2. On May 1st, 2006, at about 11:50 am ET, MR. Stallman, Applicant's representative, authorized in a telephone interview the following amendments to the claims:

Claim 5, line 1, the recitation "The laser of claim 2" has been amended to --The laser of claim 4--.

Claim 6, line 1, the recitation "wherein said back conversation" has been amended to --wherein said back conversion--.

Claim 28 line 1, the recitation "wherein said back conversation" has been amended to --wherein said back conversion--.

Claim 30 line 1, the recitation "wherein said conversation" has been amended to --wherein said conversion--.

### **Examiner's Statement of Reasons for Allowance**

3. The following is the Examiner's Statement of Reasons for Allowance:

The independent claims are allowed because the prior art fails to disclose: in a traveling wave ring laser resonator, having a gain medium generating a fundamental radiation, converting the frequency of the fundamental radiation into a second harmonic thereof, converting the fundamental and second harmonic radiations into radiation other than the fundamental and second harmonic radiations, and down-converting a portion of the unconverted second harmonic radiation into the fundamental radiation.

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Although various prior art references disclose several of the limitations in the independent claims, these references and their combination fail to disclose the above recited features.

For example, Yin '829 discloses generating second, third, and fourth harmonics, but discloses neither converting part of the unused second harmonic back to the fundamental, nor using an intra-cavity traveling ring resonator to generate the third harmonic. Caprara '702 also discloses generating second and third, but disclose neither converting part of the unused second harmonic back to the fundamental, nor using an intra-cavity traveling ring resonator to generate the third harmonic.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

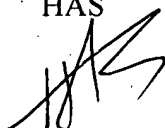
#### CLOSURE

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hrayr A. Sayadian whose telephone number is (571) 272-7779. The examiner can normally be reached Monday through Friday, 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun O. Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*Almanak R. J.*  
for  
SPE Minsun Harvey